

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
31 December 2003 (31.12.2003)

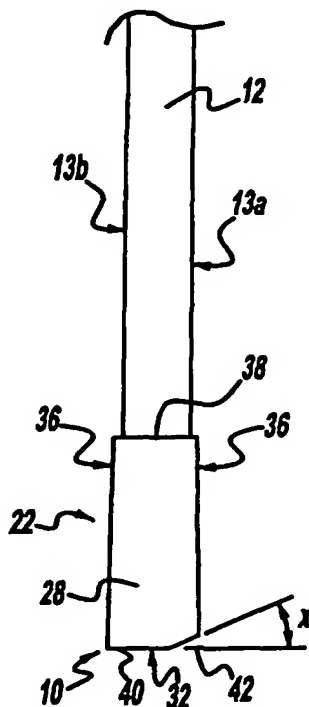
PCT

(10) International Publication Number
WO 2004/000496 A1

- (51) International Patent Classification⁷: **B23D 61/04**
- (21) International Application Number:
PCT/US2003/019031
- (22) International Filing Date: 17 June 2003 (17.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10/175,337 19 June 2002 (19.06.2002) US
- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:
US 10/175,337 (CON)
Filed on 19 June 2002 (19.06.2002)
- (71) Applicant (for all designated States except US): **BLACK & DECKER INC.** [US/US]; Drummond Plaza Office Park, 1423 Kirkwood Highway, Newark, DE 19711 (US).
- (72) Inventors; and
(75) Inventors/Applicants (for US only): **JOHNSON, David, N.** [GB/GB]; 7 Belvoir Avenue, Bamburgh, Doncaster, South Yorkshire DN5 7EX (GB). **LOVELL, Kelton, W.** [US/US]; 1 Duncroft Court, Baltimore, MD 21236 (US).
- (74) Agents: **BROCK, Christopher, M.** et al.; Harness, Dickey & Pierce, P.L.C., P.O. Box 828, Bloomfield Hills, MI 48303 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: CIRCULAR SAW BLADE FOR CUTTING FERROUS MATERIALS



(57) Abstract: A saw blade having an annular body (12) constructed of a first material having a perimeter with a plurality of teeth (16) formed therein. A plurality of carbide inserts (22) are affixed to a respective tooth. The carbide inserts include a cutting edge (32) including a first edge surface (40) which is generally parallel to an axis of rotation of the blade and a second angled edge surface (42) which is angled relative to the axis of rotation of the blade and shorter than the first edge surface.

WO 2004/000496 A1